

MONTANA DEPARTMENT OF TRANSPORTATION  
RESEARCH PROGRAM  
HELENA, MONTANA 59620-1001

**Two Medicine Bridge**  
RTF-STPHS 1-3(22)2 10  
Annual Report  
November, 2001

This Project involved placing a waterproof membrane (PavePrep®) and a 0.15 ft. thick plant mix overlay on the deck of the existing Two Medicine Bridge. This was to preserve the deck from further deterioration and maintain an adequate riding surface until replacement of the bridge by the year 2005. This project is located on NINHS N-1, US-2 approximate milepost 210 in Glacier County on the Blackfeet Indian Reservation.

Research Management classified this project as formal through the year 2002 with possible extension of the evaluation period.

Rutting data is as follows. Eastbound section outer wheel path (OWP) rut depth was averaged at 5.3mm, with a standard deviation (STD) of 1.2, compared to the inner wheel path (IWP) at 2.7mm with a STD of 1.1. Westbound OWP rut depth averaged 3.0mm with a STD of 1.5, compared to the IWP of 2.0mm with a STD of 1.0. No transverse cracking to report.

Rut measurements were taken from the wheelpaths. However, the overall appearance of the rutting seemed to be bathtub in nature across the lane. This bathtub style rut may be the cause of random travel of the entire roadbed by vehicles. It was observed that vehicles would travel over the bridge outside the norm of the wheel paths. Sometimes down the middle, or far left or right and in between. This may be due to the narrowness of the bridge and high speed associated with this stretch of highway, making it difficult to accurately measure rut characteristics. Transverse cracking at the east end approach is indicating movement of the bridge.